

PHIN Messaging System (PHINMS)

Technical Tutorial

PHINMS Version 2.5

March 12, 2005



SAFER • HEALTHIER • PEOPLE™



Agenda

- Overview of PHINMS
- Architecture Overview
- New Features in version 2.5
- Brief discussion on CPA's
- Certificate Extraction (How to)
- Installation of version 2.5
- Live Demo
- Questions



SAFER • HEALTHIER • PEOPLE™



Fast Pace: Don't Worry

- The presentation touches on critical and difficult to understand subject areas
- Goal - Provide adequate information to a technical audience so they can begin to understand the system, its components and modes of operation.
- PHINMS is a core message transport product. Focus has been on delivering a robust messaging system (Version 2.5 is drastically more user friendly than previous versions)
- Information available:
 - www.cdc.gov/phn



SAFER • HEALTHIER • PEOPLE™



PHINMS

- CDC's implementation of the ebXML 2.0 messages service standards
- Version 2.5 Runs on Windows Only
- A separable part of the NEDSS Base System
- Java based client and server



SAFER • HEALTHIER • PEOPLE™



What is ebXML

- ebXML enables “a modular yet complete electronic business framework for collaborative commerce” *
- ebMS used to send all types of files, not just XML
- Specification is jointly sponsored by OASIS and UN CEFACT

** Professional ebXML Foundations, Chappell et. al, Wrox Press, 2001*



SAFER • HEALTHIER • PEOPLE™

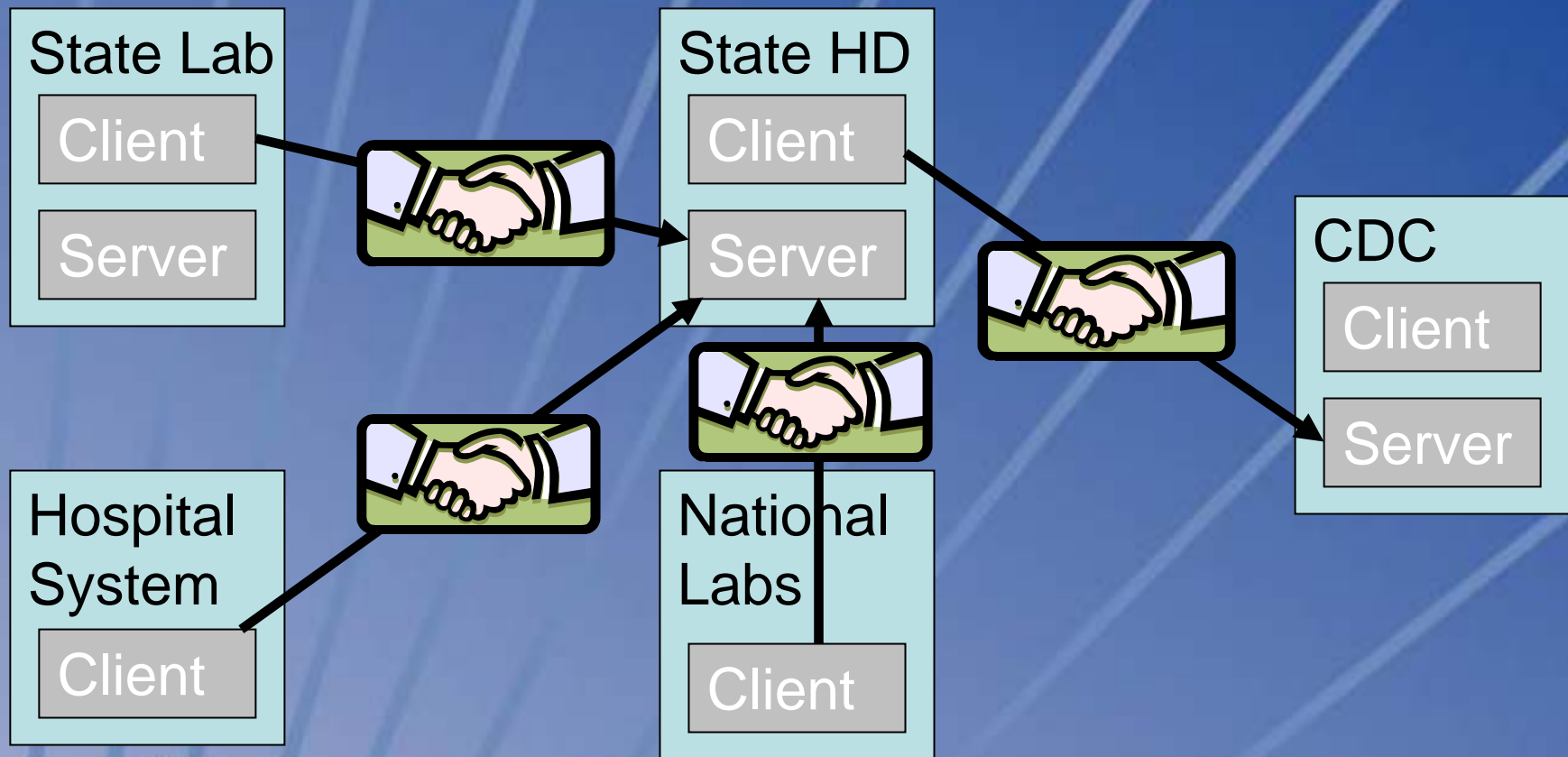


Why ebXML

- Confidentiality
 - Information remains private between two parties
- Authenticity
 - Ensured identity
- Data Integrity
 - Data has not been changed in transit
- Non-repudiation
 - Can not deny sending or receiving message



PHIN Messaging Topology



Architectural Differences



SAFER • HEALTHIER • PEOPLE™



PHINMS 2.5 Feature Enhancements

- Installation simplified (Sender and receiver included)
- Default working configuration
- GUI Configuration Console
- Ability to transport larger payloads (up to ½ Gig)
- Allow routes to use different certificates and authentication protocols



SAFER • HEALTHIER • PEOPLE™



PHINMS 2.5 Package

- Tomcat Application Server
- Sender Servlet
- Receiver Servlet
- Console
- MS Access database as default install
- Backwards compatible



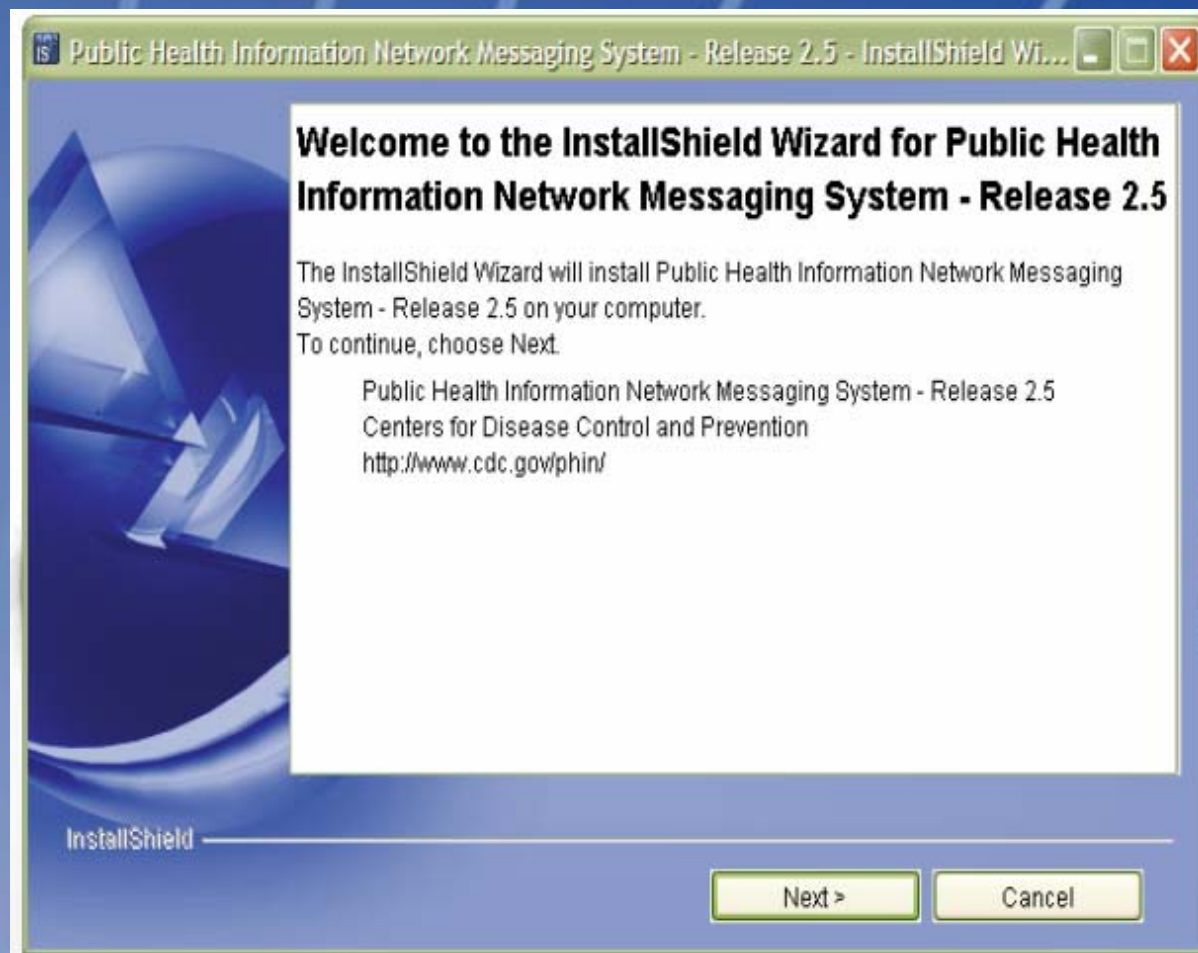
SAFER • HEALTHIER • PEOPLE™



Collaboration Protocol Agreement (CPA)

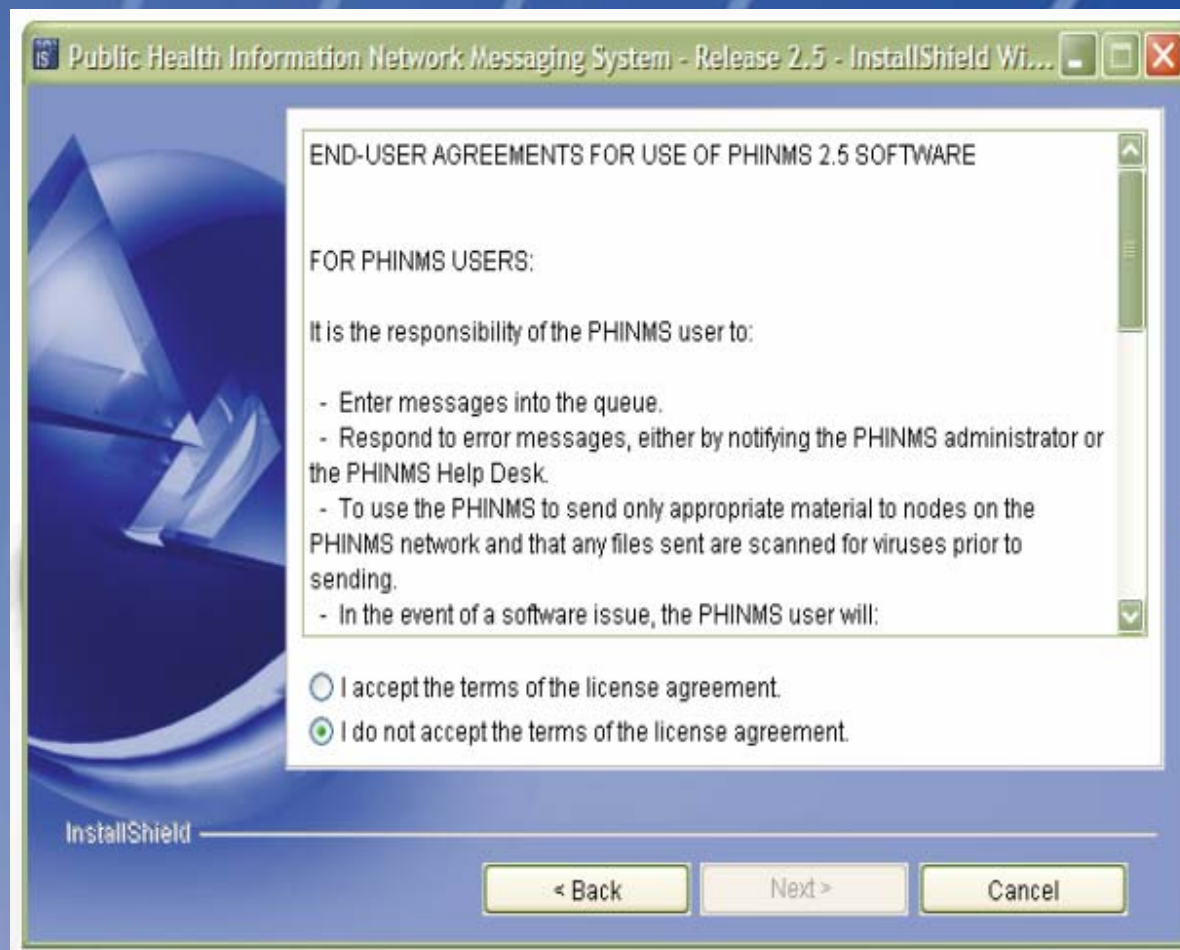
- Every node needs a CPA with every other node
- The file must be physically located on both nodes
- PartyInfo entry for both nodes
 - partner party-ID
 - end-points (URLs)
 - security attributes





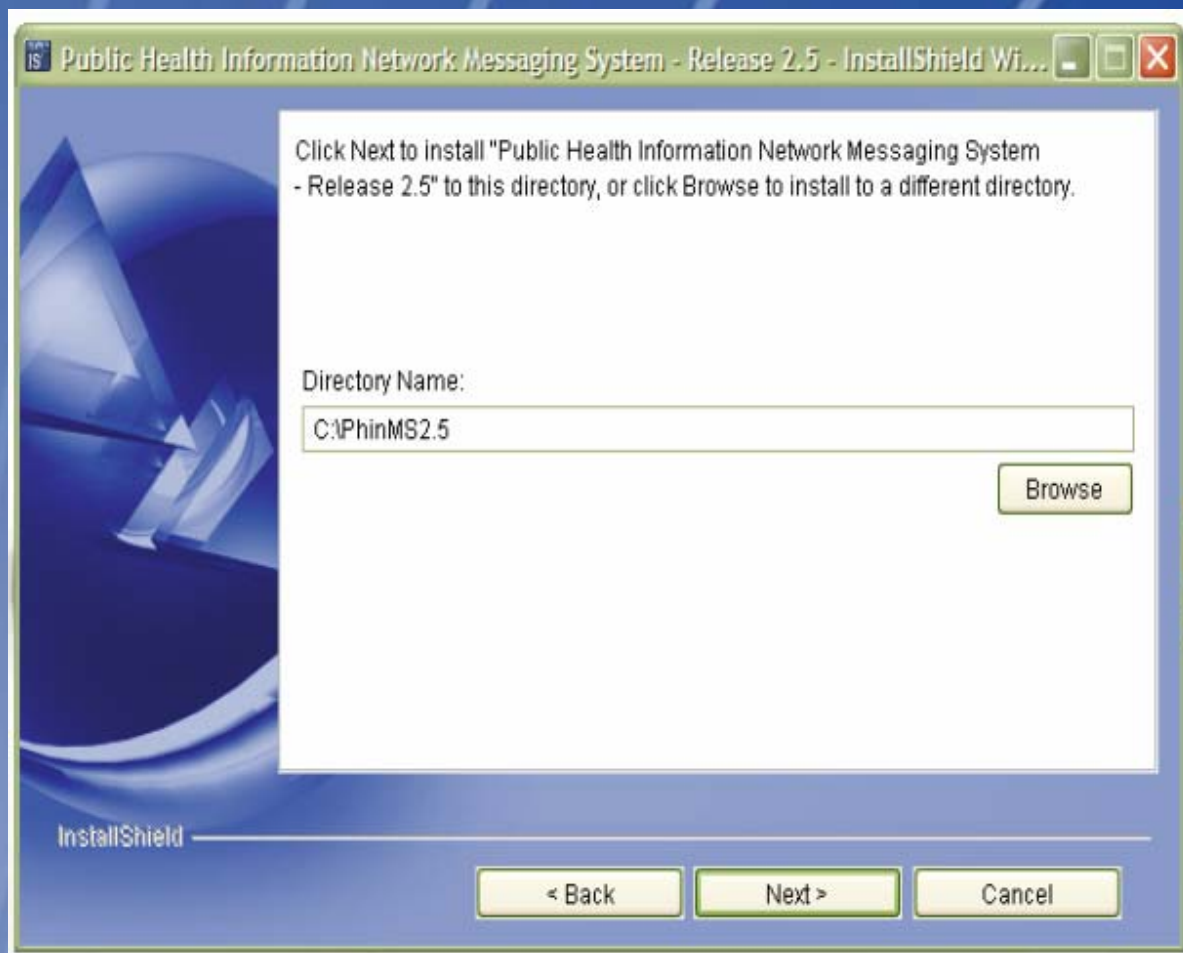
SAFER • HEALTHIER • PEOPLE™





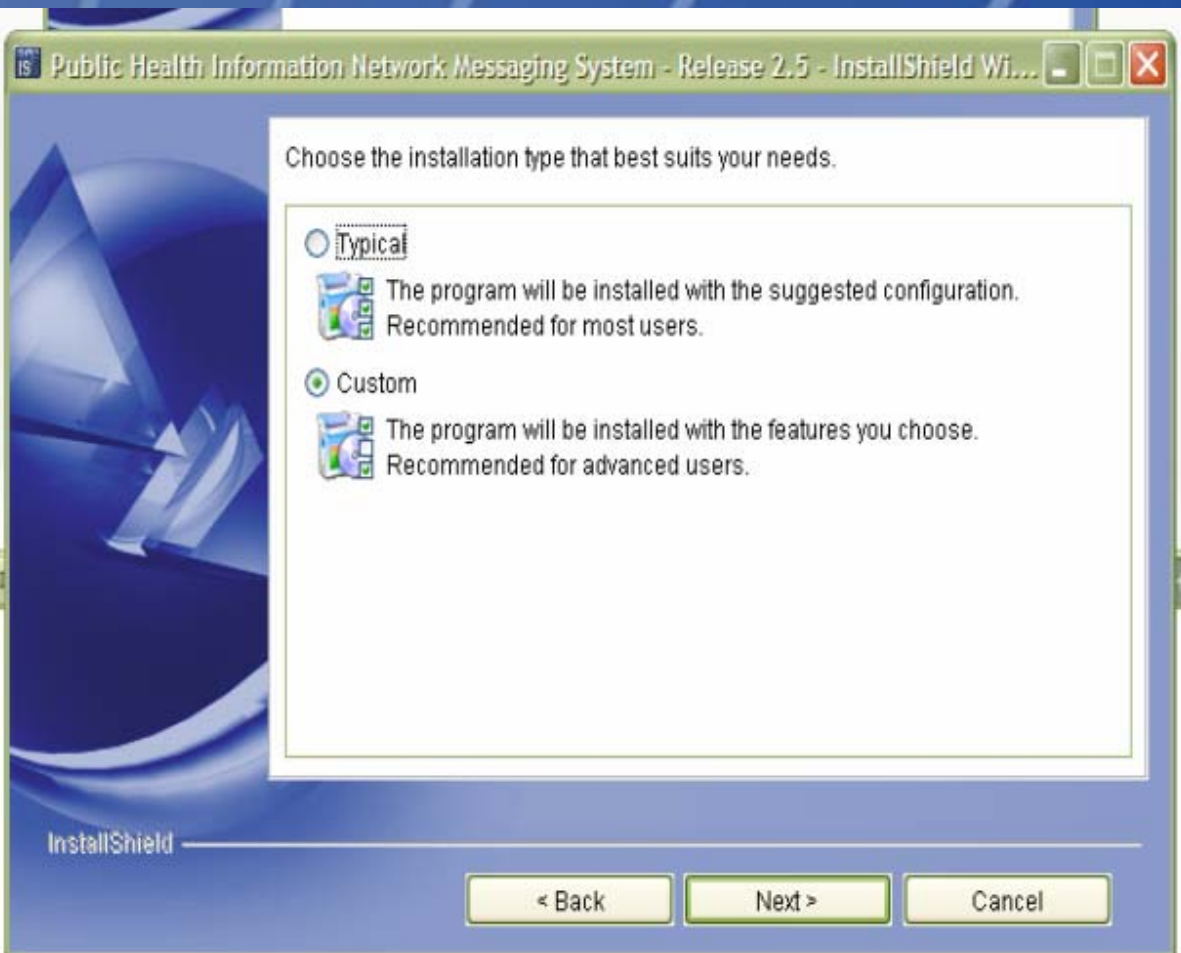
SAFER • HEALTHIER • PEOPLE™





SAFER • HEALTHIER • PEOPLE™





SAFER • HEALTHIER • PEOPLE™



Customize your installation

Select components to enable:

☐ Sender Only

☐ Receiver Only

☒ Sender and Receiver

Do you want to install PHINMS as a windows service?

☒ Yes

☐ No

InstallShield

< Back Next > Cancel



SAFER • HEALTHIER • PEOPLE™



Public Health Information Network Messaging System - Release 2.5 - InstallShield Wi...

Please Enter your Party ID and Domain below. Your Party ID uniquely identifies you within the Message Transport System. For domain name, use your Internet domain name (e.g., cdc.gov). If you have not been assigned a Party ID, then please contact your CDC/NEDSS representative.

Party ID:

Domain Name:

InstallShield

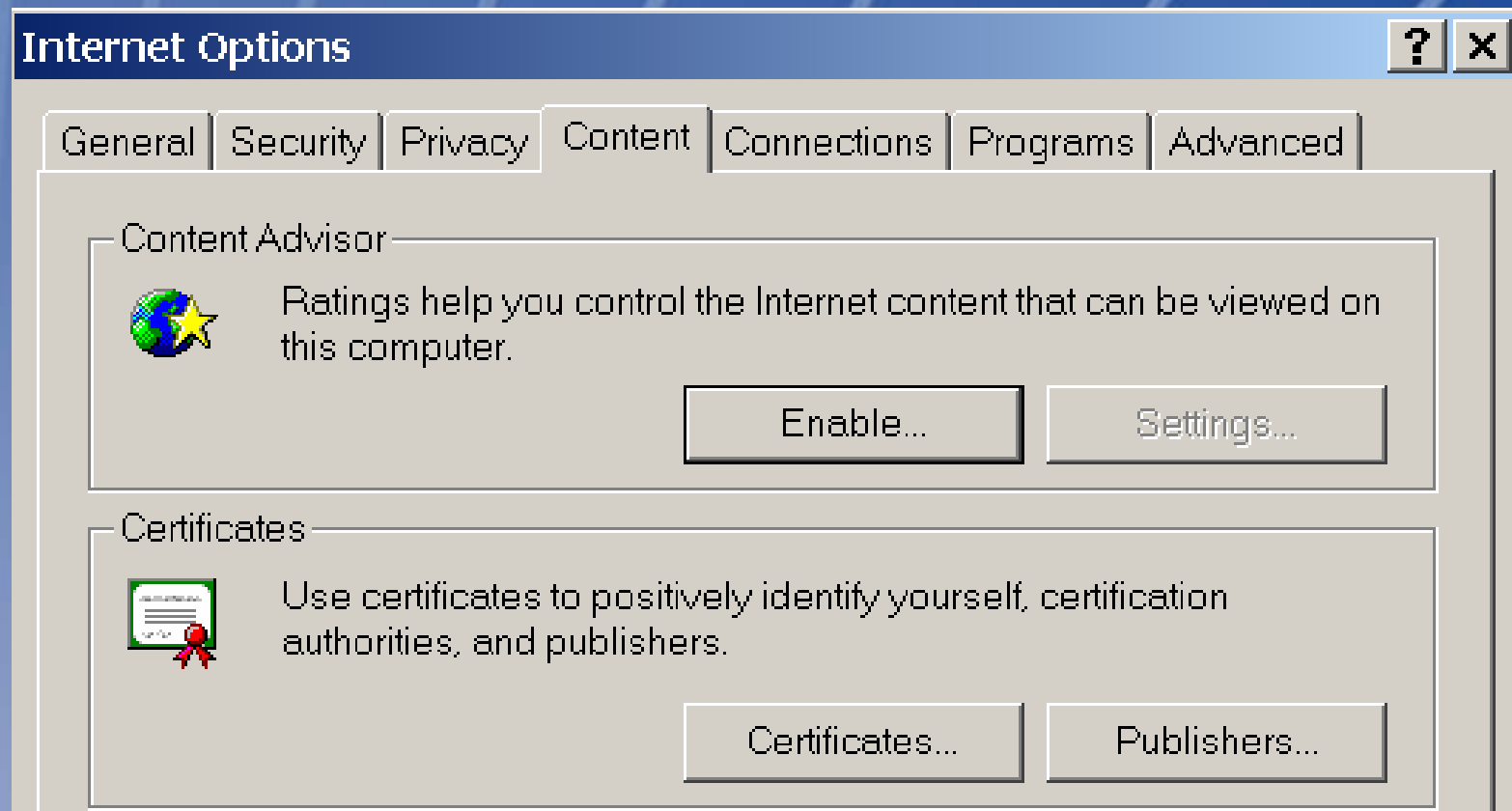
< Back Next > Cancel



SAFER • HEALTHIER • PEOPLE™

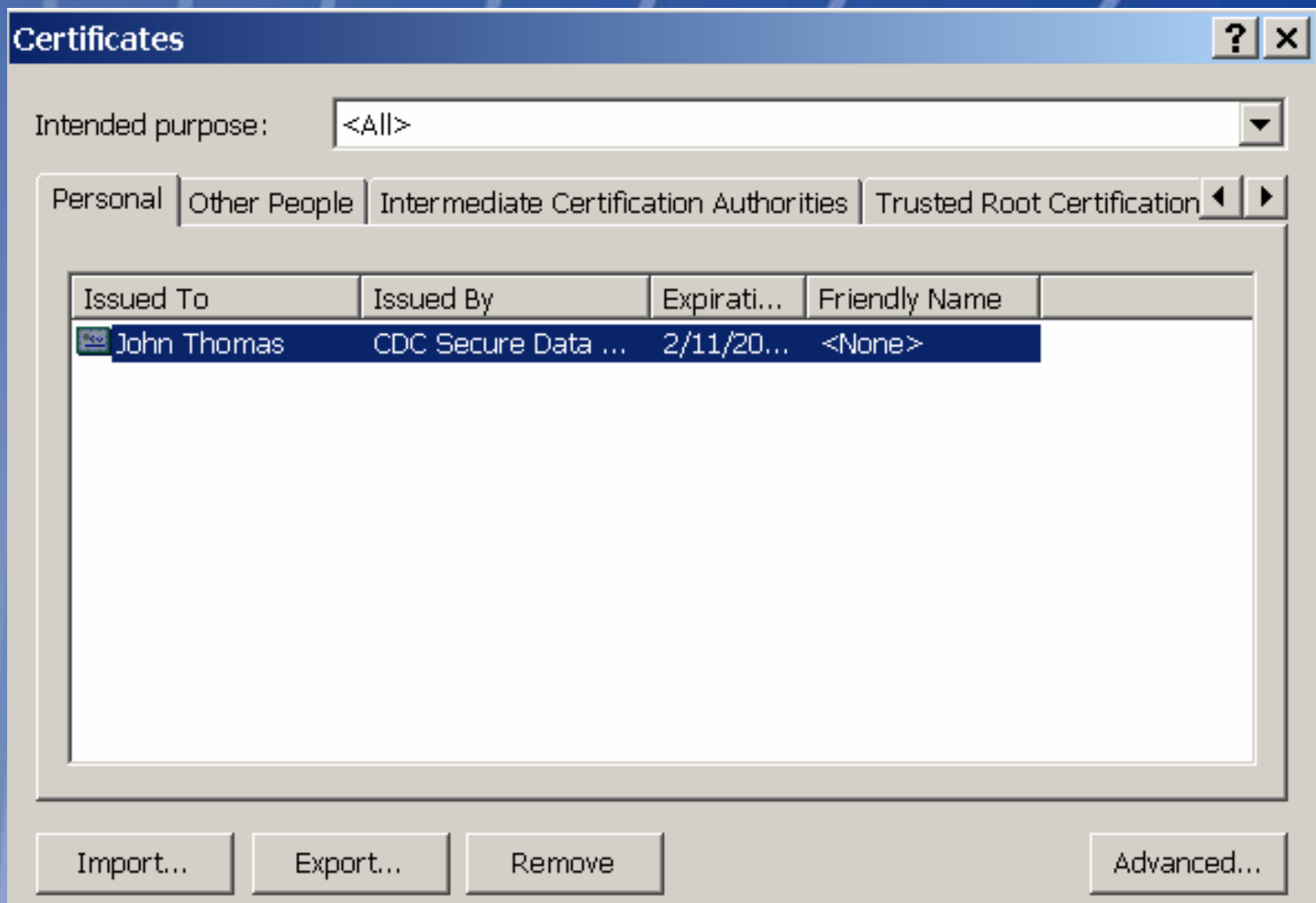


Exporting Certificate



SAFER • HEALTHIER • PEOPLE™





Exporting Certificate



SAFER • HEALTHIER • PEOPLE™



Exporting Certificate

Certificate Export Wizard



Export Private Key

You can choose to export the private key with the certificate.

Private keys are password protected. If you want to export the private key with the certificate, you must type a password on a later page.

Do you want to export the private key with the certificate?

- ☒ Yes, export the private key
- ☐ No, do not export the private key



SAFER • HEALTHIER • PEOPLE™



Export File Format

Certificates can be exported in a variety of file formats.

Select the format you want to use:

- ☐ DER encoded binary X.509 (.CER)
- ☐ Base-64 encoded X.509 (.CER)
- ☐ Cryptographic Message Syntax Standard - PKCS #7 Certificates (.P7B)

☐ Include all certificates in the certification path if possible

- ☒ Personal Information Exchange - PKCS #12 (.PFX)

☒ Include all certificates in the certification path if possible

☐ Enable strong protection (requires IE 5.0, NT 4.0 SP4 or above)

☐ Delete the private key if the export is successful

< Back

Next >

Cancel

Exporting Certificate



SAFER • HEALTHIER • PEOPLE™



Exporting Certificate

Certificate Export Wizard



Password

To maintain security, you must protect the private key by using a password.

Type and confirm a password.

Password:

Confirm password:



SAFER • HEALTHIER • PEOPLE™



Demo



SAFER • HEALTHIER • PEOPLE™

